



ASK A MASTER GARDENER

TOMATO NEMATODES

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Q Last year the Master Gardener Office diagnosed nematodes as the cause of my tomato crop and told me to change the location of my tomato bed next year. Unfortunately, I forgot all about it and planted this year's tomatoes in the same place. Help!

A Nematodes are microscopic, eel-like roundworms that live in the soil. Although some are harmless, even beneficial, your tomato plant must have been diagnosed as having root knot nematodes, a damaging species. Symptoms include slow growth, reduced crop yield, wilting, and leaves that yellow and brown from the bottom of the plant up. If you dig up and examine the roots, you will find swollen, cyst-like areas, called galls.

The idea behind crop rotation is to plant the susceptible crop in a new location, thereby removing the food source for the newly hatched pests and ending their reproductive life cycle. Unfortunately this is hard to do with root knot nematodes because they will eat a large variety of other vegetables you might plant in place of the tomatoes. Even though you planted tomatoes in the same spot as last year, all is not lost. If you planted a resistant variety (Ace, Big Beef, Big Pick, Big Set, Celebrity, Champion, Jackpot and Royal Flush), the damage will be minimal. These are designated with an "N" after the name on the plant tag.

Even non-resistant tomato varieties can survive when given the proper care, though yields will likely be reduced. Deep watering and frequent, light feedings of fertilizer can reduce the impact of nematodes. Damage is most serious in warm sandy soils, so if you amend your soil with compost to retain water and mulch the surface to keep the soil cool, your tomatoes will have a better chance.

At the end of the growing season, dig up, remove, and destroy all roots with signs of nematodes. If possible, allow that area of your garden to remain fallow (unplanted) for at least one year to deny food to any nematodes that hatch from eggs that remain in the soil. Keep the area free from weeds because these can be an alternate food source. Soil solarization is another way to reduce nematode populations for future years. At the hottest part of the summer, moisten the affected soil and cover it with a clear plastic tarp. Leave the tarp in place for 4 to 6 weeks.

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